NcoI RFLP of the human LHRH gene on chromosome 8p

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Source and Description of Clone: A 0.2 kb EcoRI−SacI fragment from human LHRH cDNA cloned into SP64.

Polymorphism: NcoI identifies two alleles:
Allele 1 — absence of 5.5 kb fragment
Allele 2 — presence of 5.5 kb fragment
Constant bands also at 9.5 and 3.2 kb.

Frequencies: 55/62 unrelated Caucasians were of the 1, 1 genotype. Observed heterozygosity = 0.11.
Assuming Hardy-Weinberg equilibrium:
Allele A1 (−5.5 kb): 0.94
Allele A2 (+5.5 kb): 0.06

Not Polymorphic For: PstI, TaqI, EcoRI, SstI, BamHI, BglIII, PvuII, MboI, EcoRV, HindIII, ApaI, BstNI, BclI, BglI, BstEII, BstNI, BstXI, HincII, HinfI, HphI, KpnI, StuI, XbaI and XmnI in 9 unrelated Caucasians.

Chromosomal Localisation: The LHRH gene has been mapped to 8p21-p11.2 (2).

Mendelian Inheritance: Mendelian inheritance was demonstrated in four two-generation families (8 meioses scored).

Probe Availability: Contact A.J. Mason at Genentech, Inc.

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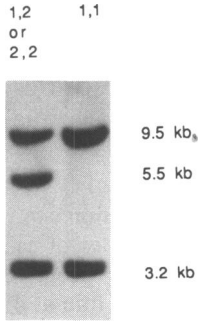
References: 1) J.P.Adelman *et al.* (1986) *Proc. Natl. Acad. Sci. USA* **83**, 179−183. 2) T.L.Yang-Feng *et al.* (1986) *Somatic Cell Molec. Genet.* **12**, 95−100.



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A new RFLP locus D8S163 maps to human chromosome 8pter-8p22

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Source/Description: The probe pKSR2 is a 507 bp genomic fragment cloned into pUC19 vector. The pKSR2 was found during the sequence analyses of the cloned human endogenous HTLV-1 related genomic DNA (1).

Polymorphism:

Enzyme	Allele Size	Frequency*
*Eco*RI	A1 17.0 kb	0.55
	A2 3.2 kb	0.45
Observed heterozygosity = 0.37		
*Taq*I	B1 3.3 kb	0.25
	B2 1.9 kb	0.75
Observed heterozygosity = 0.26		

*Studied in 19 unrelated Japanese individuals.

No Polymorphism Observed For: *Alu*I, *Hae*III, *Msp*I, *Pvu*II, *Rsa*I (19 unrelated Japanese individuals).

Mendelian Inheritance: Co-dominant segregation was observed in 2 informative families.

Chromosomal Localization: Assigned to chromosome 8pter- 8p22 using somatic cell hybrids (2).

Probe Availability: Contact Kiyotoshi Kaneko at the above address.

References: 1) Kaneko,K., Sato,S., Miyatake,T. and Tsuji,S. (1991) *Neurology* **41**, 31−34. 2) Wagner,M.J., Ge,Y., Siciliano,M. and Wells,D.E. (1991) *Genomics* **10**, 114−125.